

REQUIREMENTS FOR IDLE WELL TESTING AND MANAGEMENT

NOTICE OF PROPOSED RULEMAKING ACTION

REGARDING

**TITLE 14. NATURAL RESOURCES
DIVISION 2. DEPARTMENT OF CONSERVATION
CHAPTER 4. DEVELOPMENT, REGULATION, AND CONSERVATION OF
OIL AND GAS RESERVES**

Notice Published July 27, 2018

Office of Administrative Law Notice File Number: Z-2018-0717-07

NOTICE IS HEREBY GIVEN that the California Department of Conservation (Department) proposes to adopt the regulations described below after consideration of all comments, objections, and recommendations regarding the proposed action.

WRITTEN COMMENT PERIOD AND PUBLIC COMMENT HEARINGS

Any person or their authorized representative may submit written statements, arguments, or comments relevant to the proposed regulatory action to the Department. Comments may be submitted by email to DOGGRRegulations@conservation.ca.gov, by facsimile (FAX) to (916) 324-0984, or by mail to:

Department of Conservation
ATTN: Idle Well Testing and Management Regulations
801 K Street, MS 24-02
Sacramento, CA 95814

The written comment period closes at 5:00 p.m. on September 13, 2018. The Department will consider only comments received at the Department's offices by that time.

Any interested person or their authorized representative may present comments regarding the proposed action, either orally or in writing, at one of the public hearings to be held at the following times and places:

- Bakersfield – September 12, 2018 9:00am – 12:00pm. Four Points by Sheraton Bakersfield, 5101 California Avenue, Bakersfield, CA 93309.
- Los Angeles – September 13, 2018 9:00am – 12:00pm. Ronald Reagan State Building, 300 South Spring Street, Los Angeles, CA 90013.

Services, such as translation from English to other languages, may be provided upon request. To ensure availability of these services, please make your request no later than ten working days prior to the hearing by calling the staff person referenced in this notice.

Servicios, como traducción de Inglés a otros idiomas, pueden hacerse disponibles si usted los pide en avance. Para asegurar la disponibilidad de éstos servicios, por favor haga su petición al mínimo de diez días laborables antes de la reunión, llamado a Tim Shular, (916) 322-3080, la persona del personal mencionada en este aviso.

AUTHORITY AND REFERENCE

The Department is considering making changes to Subchapters 1 and 2 of Chapter 4 of Division 2 of Title 14 of the California Code of Regulations by the amendment of sections 1723.9 and 1760 and the adoption of sections 1752, 1772, 1772.1, 1772.1.1, 1772.1.2, 1772.1.3, 1772.2, 1772.3, and 1772.4.

Public Resources Code sections 3013 and 3206 authorizes the Department to adopt the proposed regulations. The proposed regulations will implement, interpret, make specific, or reference sections 3008, 3106, 3206, and 3206.1.

INFORMATIVE DIGEST / POLICY STATEMENT

Existing Law

The Division of Oil, Gas, and Geothermal Resources (Division), within the Department of Conservation, supervises and regulates oil, gas, and geothermal well operations, including the testing, management, and abandonment of idle wells, throughout the State. (See Pub. Resources Code, § 3106.) The Division carries out its regulatory authority to encourage the sensible development of oil and gas resources, while preventing damage to life, health, property, and natural resources. Existing regulations require operators to conduct a fluid level test on any well that has not produced oil or natural gas or been used for fluid injection for a continuous six-month period during any consecutive five-year period. (Cal. Code of Regs., tit. 14, § 1723.9.) Additional tests or remedial operations may be required if the fluid level is located above or adjacent to freshwater or potential drinking water zones, or as specified by the appropriate Division district deputy. (*Id.*) Subsequent testing periods shall be based on the fluid level in the well, the well's location

in relation to freshwater zones, mitigation measures taken by the operator to prevent fluid migration, or other factors determined by the appropriate Division district deputy, upon a showing of good cause. (*Id.*)

Assembly Bill 2729 (Williams, Chapter 272, Statutes of 2016) (AB 2729), which became effective on January 1, 2017, requires the Division to review, evaluate, and update its regulations pertaining to idle wells. The update must include requirements for, at a minimum:

- Appropriate testing to determine whether the fluid level is above the base of an underground source of drinking water.
- Appropriate testing to verify the mechanical integrity of the well.
- Appropriate remediation of idle wells if there is an indication of a lack of mechanical integrity.
- An engineering analysis for a well that has been an idle well for 15 years or more that demonstrates to the Division's satisfaction that the well is viable to be returned to operation in the future.

Proposed Regulations

The Division regulates more than 28,000 idle wells statewide. It is not uncommon for wells to become idle once they are no longer financially viable to operate due to market fluctuations, operator resources, or the lack of hydrocarbon resources. Further, some exploratory wells are never productive and are essentially idle from the date that they are drilled. Existing requirements provide operators with little incentive to properly plug and abandon idle wells, and Division statistics reveal that very few of these wells are ever returned to use. Idle wells that are not properly tested and maintained for integrity pose a range of threats to life, health, safety, and natural resources, including potential contamination of groundwater, dilution of hydrocarbon resources, and emission of methane and other gases into the atmosphere.

AB 2729 adopted Public Resources Code section 3206.1, which requires the Division to review, evaluate, and update its regulations pertaining to idle wells, including appropriate testing and remediation. It also required the Division to establish requirements for operators to submit engineering analyses for idle wells that have been idle for 15 or more years that demonstrate that the well is viable to return to operation in the future.

The proposed regulations are intended to augment the Division's current regulatory framework for idle well testing and maintenance with the following objectives:

- Address fluid level testing requirements for all idle wells.
- Provide a comprehensive testing regime for idle wells.
- Require a standardized and comprehensive set of information for each idle well as a way to create a risk-based approach for the prioritization of wells to be plugged and abandoned.
- Address mechanical integrity testing requirements that allow operators to test each idle well according to the risk that the well poses.
- Provide a regulatory framework for engineering analyses for idle wells that have been idle for 15 or more years.
- Provide a testing waiver program that would avoid unnecessary testing for idle wells selected for plugging and abandonment.
- Provide requirements for the partial plugging of a well and mechanical integrity testing standards for a partially plugged idle well.
- Provide a regulatory framework that would require operators to test and monitor the integrity of observation wells.
- Allow for the verification of injection or production of any well that reported such activity.

These proposed regulations concerning the testing, maintenance, and abandonment of idle wells and observation wells respond to the mandate of Public Resources Code section 3206.1, as well as the Division's broader mandate under Public Resources Code section 3106, by requiring more rigorous testing of idle wells and observation wells, operator evaluations of idle wells, and engineering analyses for idle wells that have been idle for 15 or more years. The proposed regulations will protect the public health and safety, natural resources, and the environment by ensuring that wells are not allowed to become a potential conduit for contamination of groundwater, dilution of hydrocarbon resources, or leaking methane into the atmosphere.

Consistency with Comparable Federal Statutes or Regulations

The proposed regulations are not inconsistent or incompatible with federal statutes or regulations. The Division is the main regulatory body for idle wells in the state of California. However, on federal land, the Bureau of Land Management (BLM) and the

Division both have regulatory jurisdiction. Federal regulations require operators to promptly plug and abandon wells newly completed or recompleted wells in which oil or gas is not encountered in paying quantities or is no longer capable of producing oil or gas in paying quantities, possibly due to casing damage, unless BLM approves use as a service well for injection or subsurface disposal. (43 CFR, § 3162.3-4, subd. (a).) Also, no wells may be temporarily abandoned for more than 30 days without BLM approval. (43 CFR, § 3162.3-4, subd. (c).) The proposed regulations for the testing and maintenance of idle wells and observation wells are more stringent than the federal counterpart and more protective of the public and environment. Nothing in the proposed regulations is inconsistent or incompatible with federal statutes or regulations.

Consistency with Existing State Regulations

The proposed regulations are not inconsistent or incompatible with existing state regulations. The Division is the regulatory agency responsible for supervising the drilling, operation, maintenance, and abandonment of oil and gas wells statewide, and is the only state agency that imposes requirements for testing and maintenance of these wells.

PLAIN ENGLISH REQUIREMENT

The Department staff prepared the proposed regulations pursuant to the standard of clarity provided in Government Code section 11349, subdivision (c), and the plain English requirements of Government Code sections 11342.580 and 11346.2, subdivision (a)(1). The proposed regulations are written so as to be easily understood by the persons who will use them.

LOCAL MANDATE

The proposed action does not impose a mandate on local agencies or school districts.

COST OR SAVINGS TO STATE AGENCIES

To implement the Department's Idle Well Program, the Department required a baseline appropriation of approximately \$1.5 million the first year and roughly \$2.5 million per year ongoing. These expenditures have been approved by the Legislature.

The Department anticipates that there may be some minor cost savings to other state agencies. The California Air Resources Board regulates fugitive emissions from wells and facilities in oil and gas fields. To the extent that increased testing and oversight motivates operators to plug and abandon idle wells, less oversight is required. The State Water Resources Control Board collaborates with the Department in underground injection control projects in order to protect the State's water resources. As idle wells are

plugged and abandoned, the risk that they pose to those water resources is reduced or eliminated.

COST OR SAVINGS TO LOCAL AGENCIES

This proposal does not impose costs on any local agency or school district for which reimbursement would be required pursuant to Part 7 (commencing with Section 17500) of Division 4 of the Government Code. This proposal does not impose other nondiscretionary cost or savings on local agencies. This proposal does not result in any cost or savings in federal funding to the state.

COST OR SAVINGS IN FEDERAL FUNDING

The proposed action does not affect federal funding to the State.

EFFECT ON HOUSING COSTS

The proposed regulations will not have a significant effect on housing costs.

IMPACT ON BUSINESS

The proposed regulations will directly affect owners of idle wells and observation wells. The following compliance requirements are projected to result from the proposed regulations will:

- Require testing on partially plugged wells.
- Require the preparation and submittal of an Idle Well Inventory and Evaluation.
- Require more rigorous testing for idle wells.
- Require the preparation and submittal of an engineering analyses for idle wells that have been idle for 15 or more years.
- Allow operators to prepare and submit a testing waiver plan to forgo testing on idle wells that are scheduled to be plugged and abandoned within five years.
- Require testing on observation wells.
- Require operators to verify production or injection for a well when requested by the Division.

The Division made an initial determination that the adoption of these regulations may have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states. However, the Division believes that each of these requirements is necessary to accomplish the statutory mandates of Public Resources Code sections 3106 and 3206.1. The Division has considered proposed alternatives that would lessen any adverse economic impact on business and invites you to submit additional proposals. Submissions may include the following considerations:

- The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to businesses.
- Consolidation or simplification of compliance and reporting requirements for businesses.
- The use of performance standards rather than prescriptive standards.
- Exemption or partial exemption from the regulatory requirements for businesses.

This rulemaking will affect owners and operators with idle wells and/or observation wells.

RESULTS OF THE STANDARDIZED REGULATORY IMPACT ASSESSMENT

The Division determined that this rulemaking action is a major regulation and has completed a Standardized Regulatory Impact Assessment (SRIA). The SRIA, Department of Finance (DOF) comments on the SRIA, and the Division's response to DOF's comments are included in the Initial Statement of Reasons for this rulemaking action.

The SRIA found that the typical operator with idle wells has the ability to absorb the costs associated with the proposed regulations and will not be deterred from continuing operations. However, the SRIA also found small operators may not be able to absorb the cost associated with the proposed regulations and may decide to exit the industry. For these reasons, the Division made the following determinations:

- The proposed regulations will affect the creation or elimination of jobs within the State of California.
- The proposed regulations will likely affect the creation of new businesses or the elimination of existing businesses within the State of California.

- The proposed regulations may affect the expansion of businesses currently doing business in the State of California.
- The proposed regulations may affect the ability of businesses within California to compete with businesses in other states.
- The proposed regulations may affect the competitive advantages or disadvantages for businesses currently doing business in the State of California.
- The proposed regulations may affect the increase or decrease of investment in the State of California.
- The proposed regulations will not likely affect incentives for innovation in products, materials, or processes.

Further, the Department determined that the proposed regulations will result in nonmonetary benefits such as protection of public health and safety and environmental health and safety. Specifically, benefits are:

- Prevention of fugitive emissions from damaged idle wells.
- Prevention of migration of fluids between hydrocarbon zones and underground sources of drinking water.
- Reduced risks to public health and safety associated with idle wells located in urban or sensitive areas.
- Reduced state liability for hazardous idle wells that are deserted by operators.
- New employment as a result of the increased need for oil and gas contract services to meet testing requirements and to conduct plugging and abandonment operations.

COST IMPACTS ON A REPRESENTATIVE PRIVATE PERSON OR BUSINESS

Most of the State's idle wells are owned by large operators (12 operators own 72 percent of the State's idle wells). Thus, the Division considers a representative business to be a relatively large operator. The proposed regulations will likely require operators to divert spending from other priorities such as production, research and development, and other investment decisions to cover the additional costs imposed by new testing, plugging and abandonment, and other elements of the regulations. Not only are the proposed

regulations likely to reduce operators' profit margins in the short-term, they may delay investments in new production to some extent. Despite these new compliance costs, the Division expects representative operators with large inventories of idle wells (and the largest cost exposure to the new regulatory requirements) to be able to absorb the costs, particularly in the long-term.

While the regulatory requirements will impose costs on owners of idle wells, the results of the SRIA concluded that the proposed regulations will also provide economic benefits to individuals, the public, communities, and both large and small businesses within the state by providing a robust market for professional services. Much of the required work involving testing, plugging and abandonment, and remediation is likely to be performed by service contractors who have the necessary equipment and skill to meet the increased demand imposed by the proposed requirements.

Based on conservative assumptions that overestimate costs, representative operators will be responsible for the majority of the average \$214 million cost burden over the first six years of implementation. In turn, the majority of the indirect economic benefits from this regulatory spending could yield up to a six-year annual average of about \$284 million in gross output, \$83 million in earnings, 1,231 jobs, and \$185 million in value added.

SUMMARY OF DOF COMMENTS ON STANDARDIZED REGULATORY IMPACT ASSESSMENT

The Department of Finance (DOF) generally concurred with the Division's SRIA for the proposed regulations and found that it meets the requirements for the SRIA, but added two critiques of the SRIA. DOF's comments on the SRIA and the Division's response are summarized as follows:

- *DOF Comment: The SRIA should address how the increased industry costs could decrease California oil production, which has been declining over the last few decades.*

Division Response: California's oil production has been steadily declining since the mid-1980s. The Division does not believe that the costs associated with the proposed regulations are a significant determinant in the State's decreased production. The main reason for the decline that predates the Division's pending proposed regulations is California's depletion of easily recoverable oil reserves. Throughout the 20th century, California has been a nationwide leader in oil production. The State's long history of oil extraction means that most of the easily accessible oil has already been recovered via primary and secondary methods of hydrocarbon production. In most fields, the State is now in the tertiary phase of oil recovery that requires more expensive and intensive methods of oil extraction. As

a result, oil recovery has decreased over time, even in the absence of strong regulations. Even in the years where the average annual price of crude oil has increased, production has only increased marginally or remained constant compared to the prior year without being able to match production levels from prior decades.

The costs of compliance identified in the SRIA are eclipsed by the value of swings in oil prices observed over the last 15 years and are likely to have a minimal to insignificant impact on oil production in the short-term. The Division believes that the costs associated with the proposed regulations will likely decrease operator profits in the short-term as operators divert funding and resources to meet the compliance requirements of the proposed regulations. However, the short-term impact of profits caused by the compliance costs of the proposed regulations are a small fraction of typical fluctuations in oil and gas prices in any given year. As such, the price of oil will have a far larger impact on operator decisions to invest in production than the cost of the regulations.

- *DOF Comment: If imports have to increase, the carbon intensity of California fuel may increase, potentially making other emissions reductions necessary to meet state goals.*

Division Response: It is possible that the increasing reliance on imported oil could increase the carbon intensity of fuel used in California. However, the carbon intensity of fuels is determined by a number of factors in addition to emissions produced during transportation. For example, in some cases, the carbon intensity of crude oil, including transportation emissions, could be lower from fields in other states or nations than crude produced in California. While, according to data from the California Air Resources Board's (CARB) Low Carbon Fuel Standard program, oil from California fields has an average carbon intensity of 7 (g/MJ), some of the State's largest producing fields have relatively high carbon intensity. For example, the State's largest producing oil fields, Midway-Sunset, Kern River, South Belridge, and Cymric have a carbon intensity of 25.05 (g/MJ), 9.63 (g/MJ), 14.84 (g/MJ), and 19.23 (g/MJ) respectively. California's current primary sources of imports are Saudi Arabia and Alaska. Alaska's carbon intensity is 12.91 (g/MJ) and Saudi Arabia ranges from 8.66 to 9.35 (g/MJ). As the Trans Mountain Pipeline is completed in Canada, California may consume more Canadian oil.

Regardless of where California's crude oil comes from, the transportation sector remains by far the largest source of carbon emissions at 41 percent. As a result, a reduction in oil production will have very little impact on overall greenhouse gas

(GHG) emissions in the State compared to the actual consumption of fuel in transportation. In order to meet future GHG reduction goals, emissions reductions from the fuel sector will likely have to be driven by reducing both vehicle miles traveled as well as increasing the use of electric vehicles, biofuels, hydrogen fuel cells, and other alternative means of transportation. Even if oil production were to increase as prices rise, emissions from the fuel sector will eventually have to be reduced. The California Air Resources Board has broad authority to regulate transportation emissions and, along with the California Energy Commission provides several incentives for households and transportation companies to switch to lower emission transportation technologies. As we approach the recently enacted goal of reducing emissions 40 percent below 1990 levels by 2030, it is likely that transportation emissions will need to be cut well beyond any possible increase in fuel carbon intensity, if any, imposed by these proposed regulations.

CONSIDERATION OF ALTERNATIVES

In accordance with Government Code section 11346.5, subdivision (a)(13), the Division must determine that no reasonable alternatives that it considered, or that were otherwise identified and brought to the Division's attention, would be more effective in carrying out the purpose for which the action is proposed, or would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

The Division has engaged in substantial pre-rulemaking workshops and discussions. Numerous critiques and comments were evaluated, and some suggested more cost-effective alternatives that met the goals of the proposed regulations were incorporated into what is being proposed here. Additionally, the SRIA for the proposed regulations evaluates alternatives to the proposed regulations. No alternative considered by the Division thus far would be more effective in carrying out the purposes of the proposed regulations, or would be equally effective but less burdensome to affected private persons and small businesses than the proposed regulations. The proposed regulations will further the statutory mandates and regulatory goals for idle wells; reduce risks to health, safety and the environment; and promote transparent oversight and evaluation of idle wells.

Nevertheless, the Department invites interested persons to submit comments regarding alternatives to the proposed regulations during the written comment period, or to present any such comments regarding alternatives, either orally or in writing, at the hearings scheduled to receive comments relative to the proposed action.

FINDING OF NECESSITY OF REPORTS

The Division has found that it is necessary for the health, safety, or welfare of the people of the State that this regulation which requires a report apply to businesses.

IMPACT ON SMALL BUSINESS

For purposes of the SRIA accompanying the proposed regulations, the Division defined a small business as any operator with positive oil and gas production and less than \$15 million each in estimated gross revenue in 2017. One hundred and fifty-three (153) operators meet this standard, representing 13 percent of all operators with idle wells. The 153 operators collectively own 2,318 idle wells and generated over \$222 million in 2017, or nearly 2.5 percent of the \$8.9 billion gross revenue among all idle well owners.

On average, the direct costs make up 5.6 to 10.2 percent of the gross revenue for the small operator. The direct costs could have a significant impact on these operators, particularly the ones who do not produce much oil or gas. The costs of compliance to a small operator will reduce his or her profit margins and negatively impact investment decisions in the short-term. The funds necessary to comply with the proposed regulations would likely be diverted from direct production activities in this case, which could restrict an operator's ability to produce to its full productive capacity. Even in the absence of the proposed regulations, a small operator is far more likely than a large operator to declare bankruptcy and desert its idle wells, which will then trigger enforcement actions by the Division. The proposed regulations are intended to address idle wells owned by small operators while the small operators are still financially solvent.

CONTACT PERSON

Inquiries concerning the proposed action may be directed to:

Tim Shular
Office of Governmental and Environmental Relations
Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814
Phone: (916) 322-3080
Email: DOGGRRegulations@conservation.ca.gov

The backup contact for these inquiries is:

Blair Gollihur
Office of Governmental and Environmental Relations
Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814
Phone: (916) 322-3080
Email: DOGGRRegulations@conservation.ca.gov

AVAILABILITY OF RULEMAKING FILE

The Department prepared an initial statement of reasons for the proposed action, and has available all the information upon which its proposal is based, and the express terms of the proposed action. The Department will have the entire rulemaking file available for inspection and copying throughout the rulemaking process at its office at the above address. As of the date this Notice is published in the Notice Register, the rulemaking file consists of this Notice, the proposed text of the regulations, the initial statement of reasons, the documents relied upon, the standardized regulatory impact assessment, and a standard form 399.

Copies of these documents may be obtained by contacting Tim Shular at the address and phone number listed above.

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After the written comment period and any hearing(s) that may be conducted by the Department to receive comments regarding the proposed regulations, the Department will consider all timely and relevant comments received. Thereafter, the Department may adopt the proposed regulations in substantially the same form as described in this notice.

If the Department makes any modifications to the text of the proposed regulations that are substantial, but sufficiently related to the original proposed text described in this notice, the Department will make the modified text (with changes clearly indicated) available to the public for at least 15 days before adopting the proposed regulations as modified. The Department will accept written comments regarding modified regulations for 15 days after the date upon which they are made available to the public. Please send requests for copies of any modified regulations to Attention: Idle Well Testing Regulations at the address indicated above.

AVAILABILITY OF THE FINAL STATEMENT OF REASONS

Upon its completion, copies of the Final Statement of Reasons may be obtained by contacting Tim Shular at the address indicated above. The Final Statement of Reasons will also be available on our website at

http://www.conservation.ca.gov/dog/general_information/Pages/IdleWells.aspx.

AVAILABILITY OF DOCUMENTS ON THE INTERNET

Copies of the Notice of Proposed Action, the Initial Statement of Reasons, and the text of the regulations in underline and strike out can be accessed through our website at:

<http://www.conservation.ca.gov>.

If you have any questions regarding the process for this proposed action, please contact Tim Shular, Office of Governmental and Environmental Relations, at (916) 322-3080, or by email at DOGGRRegulations@consevation.ca.gov.